

Express Mail Label No. EV516209118 US
Appl. No. 09/377,611
Amdt. dated May 11, 2005
Reply to Office action of February 11, 2005

REMARKS

Reconsideration of this application is respectfully requested.

Applicants thank the Examiner for clarifying the office action in a telephone conversation with the undersigned on May 9, 2005. The Examiner indicated that the cited reference U.S. Patent 6,654,891 (the number which appears in the action) is incorrect, and there is no need to address that patent. The Examiner indicated that the correct patent number for the Chessell reference cited in the action should be 6,631,395. Accordingly, the response below and the foregoing amendments address the rejections over Christie (6,182,117) in view of Chessell (6,631,395).

Claims 1-2, 4-13, 15, 19-26 and 28-31 were pending. All the claims were rejected. The independent claims are all amended. Claims 32-34 are added.

The Action states that the “predetermined number” in the independent claims can be zero, so that the waiting step never has to occur. The independent claims have all been amended to require a “predetermined non-zero number” so that the waiting step must occur. Since FIG. 2 shows two hosts, and the specification provides an example in which the predetermined percentage is 50%, there is support in the specification for waiting until at least one agent (a non-zero number) determines that its respective web server is able to receive the changes.

Claim 1 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because “the one agent” lacked antecedent basis. Claim 1 has been amended to provide proper antecedant basis. Paragraph (c) is also rearranged to improve readability, and to refer to the multiple agents more consistently.

Claim 24 was rejected under 35 U.S.C. § 112, second paragraph as indefinite because there was no antecedant basis for “the signal.” Claim 24 is amended to recite, “receiving a response from the computer after the modification list is transmitted.”

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Withdrawal of the rejections under § 112 is respectfully requested.

Claims 1-2, 4-13, 15, 19-26 and 28 were rejected as unpatentable over Christie in view of Chessell. Withdrawal of the rejection is respectfully requested.

As noted above, the independent claims are all amended to require, “waiting until a predetermined **non-zero** number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents.” The action alleges that Chessell teaches the above waiting step. However, Chessell neither discloses nor suggests this feature, whether taken alone or in combination with Christie.

Chessell seeks a solution to the problem of in-doubt transactions in a distributed database system, where either (1) all of the resources must commit the transaction, or (2) all of the resources must roll back the transaction. The transaction data are sent to each of the relevant resource objects and the objects during the prepared phase, so that they should be ready to commit or roll back the transaction. In Chessell’s distributed database, data coherency is critical, and it is not permissible for the transaction to be committed in some resource objects and rolled back in others. Thus, if a single one of Chessell’s resource objects votes to roll back the transaction, all the resource objects must roll back the transaction. If one of the resources “throws an exception” (essentially indicating that it is not ready to answer) in place of a vote, the transaction cannot yet be committed at all the remaining resources, but it may still be premature to conclude that the transaction should be rolled back everywhere. This creates a problem where multiple resources can be locked for an excessive period of time waiting for a final determination of whether all the resource objects can commit the transaction, or all the resources should roll back the transaction.

Chessell is directed to a method for releasing locked resource objects when votes to commit have not been received from one or more other resource objects. Chessell allows an

administrator to program the system so that for a given type of transaction, when an exception occurs all objects of that given type are either instructed to (1) commit the transaction or (2) roll back the transaction. For any given transaction, Chessell's system will still either instruct all resource objects to commit the transaction or instruct all resource objects to rollback the transaction.

Nevertheless, Chessell does not change the basic concept of the two-phase commit process. The data are already transmitted to the relevant resource objects in the prepare phase, without waiting for the voting to complete, and without waiting for the decision to commit or roll back the transaction everywhere. Subsequently, during the commit phase, all of the affected resource objects are instructed at the same time to commit, or instructed to roll back. See Chessell's definition of "rollback" at col. 3, lines 25-26 ("and thus all servers 'rollback' or ignore the changes to the local databases.") This statement by Chessell shows that Chessell had already sent the changes to all the affected local databases, without waiting to determine whether the local databases are able to complete the transaction. This statement by Chessell would be nonsensical if the changes had not already been transmitted to the local databases in the prepare phase. Indeed, if Chessell waited until the decision is made to roll back a transaction before transmitting the identified changes to the resource objects, there would be nothing to roll back and no reason to transmit any of the changes, because the resource objects would not have received any of the changes, and therefore would not have installed them. Thus Chessell does not, "[wait] until a predetermined non-zero number or percentage of the agents determine that their respective web servers are able to receive the identified changes before transmitting the identified changes to the agents," as required by claim 1.

Therefore, the rejection of claim 1 should be withdrawn. Independent claims 19 and 24 are amended in similar fashion, and should also be allowable for the same reason as claim 1. Claims 2, 4-13, 15, 20-23, 25, 26 and 31 variously depend on claims 1, 19 and 24, and should be allowable for the same reasons.

Amended Claim 28 recites:

(e) if a predetermined non-zero number or percentage of the web servers are able to receive the updated content, then:

(1) transmitting the changes to the agents corresponding to the web servers that are able to receive the identified changes for completion of installation at those web servers, **regardless of whether another one of the web servers is unable to complete installation of the identified changes;** and

According to claim 28, if the predetermined non-zero number or percentage of the web servers are able to receive the updated content, the changes are transmitted to the servers that are able to receive the changes, even if another one of the servers is unable to complete installation.

The combination of Christie and Chessell neither discloses nor suggests this feature. As noted above, in Chessell's method, if even a single resource object votes to rollback the transaction (i.e., indicates that it is unable to complete installation of the identified changes), then all the affected resource objects must rollback the transaction. Therefore, Chessell would not have motivated one of ordinary skill in the art to modify the teachings of Christie to allow completion of installation at the web servers that are able to receive the identified changes regardless of whether another one of the web servers is unable to complete installation of the identified changes.

Therefore claim 28 and its dependent claims 29-30 should be allowed. New claims 32-34 include features similar to those added to claim 28, and should also be allowable for at least the same reasons as claim 28.

In view of the foregoing amendments and remarks, Applicant submits that this application is in condition for allowance. Early notification to that effect is respectfully requested. However, if the Examiner has any remaining issue or question, the Examiner is requested to call Steven Koffs at 215-979-1250 to expedite the prosecution of this application.

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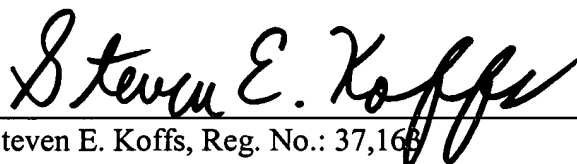
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The Assistant Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account **04-1679**.

Respectfully submitted,

Dated: 5-11-05



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